

Claims:

WHAT IS CLAIMED IS

1. A cemented carbide insert provided with a thin wear resistant coating with excellent properties for machining of steels and stainless steels consisting of WC, 5 - 12.5 wt-% Co and 0 - 10 wt-% cubic carbides such as TiC, TaC, NbC or mixtures thereof in which the WC-grains have an average grain size in the range 1.0 - 3.0  $\mu$ m characterised in that the WC grains have a narrow grain size distribution in the range 0.5 - 4.5  $\mu$ m and the W-content in the binder phase expressed as the "CW-ratio" defined as

$$\text{CW-ratio} = M_s / \text{wt\%Co} * 0.0161$$

where  $M_s$  is the measured saturation magnetization of the sintered cemented carbide insert in kA/m and wt% Co is the weight percentage of Co in the cemented carbide is 0.86 - 0.96.

2. A cemented carbide insert according to the preceding claim characterised in that said coating comprises  $\text{TiC}_x\text{N}_y\text{O}_z$  with columnar grains followed by a layer of  $\alpha\text{-Al}_2\text{O}_3$ ,  $\text{k-Al}_2\text{O}_3$  or a mixture of  $\alpha$ - and  $\text{k-Al}_2\text{O}_3$ .